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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/071,682	02/08/2002	Ronald J. Martis	H0003204 (4710)	4038

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EXAMINER	
POKER, JENNIFER A	

ART UNIT	PAPER NUMBER
2832	

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/071,682	MARTIS ET AL.	
	Examiner	Art Unit	
	Jennifer A. Poker	2832	

-- The MAILING DATE of this communication appears on the cov r she t with th correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 November 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5 and 8-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5 and 8-11* is/are rejected.

7)☒ Claim(s) *12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

General Status

1. This is a second action on the merits of amendment received November 19, 2003 of application filed February 8, 2002. Claims 1-3, 5, 8-12 are pending and are being examined.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 6,211,765 to Ito, et al, in view of U.S. Patent Number 6,093,261 to Hasegawa, et al.

Ito, et al, discloses magnetic cores comprising a coil wound about the core.

Ito, et al, discloses the claimed invention except for the linear B-H characteristics.

Hasegawa, et al, discloses alloys, which are annealed and are used to enhance magnetic properties. The properties are characterized by substantially linear magnetization response in the frequency regime wherein a system operates magnetically (abstract). As can be seen in figure 1(b), there is linear B-H characteristic within a desired range of magnetic field.

One skilled in the art, at the time the invention was made, would have found it obvious to combine the teachings of Ito, et al, with the teachings of Hasegawa, et al, and utilize an alloy having linear B-H characteristic for a magnetic core in order to enhance magnetic properties.

Furthermore, applicant admits on page 2 of the specification that alloys with linear B-H characteristic is already known in the art.

Ito, et al, in view of Hasegawa, et al, disclose the linear characteristics of the claimed invention except for the specified ranges of magnetic field (-15Oe to +15Oe) and frequency range up to 1000kHz. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a suitable range for magnetic fields applied and frequency applied, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller, 105 USPQ 233.*

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 6,211,765 to Ito, et al, in view of U.S. Patent Number 6,093,261 to Hasegawa, et al, further in view of U.S. Patent Number 6,507,262 to Otte, et al.

Ito, et al, in view of Hasegawa, et al, disclose the claimed invention except for the specific value of saturation induction to be at least 10 kG (1 tesla).

Otte, et al, discloses a magnetic core suitable for use in a current transformer or the like; the magnetic core comprising magnetic properties with permeability, in contrast to conventional Permalloy cores, almost constant at the high value over a wide range. This was possible because, on one hand, the alloy used had a high saturation induction of approximately 1.2 Tesla (column 3, lines 59-60; column 9, lines 1-8).

One skilled in the art, at the time the invention was made, would have found it obvious to combine the teachings of Ito, et al, in view of Hasegawa, et al, with the teachings of Otte, et al, and utilize an alloy in a magnetic core; the alloy having linear B-H characteristic and having a saturation

induction of approximately 1.2 Tesla in order to enhance magnetic properties and maintain permeability at a constant.

Furthermore, it would have been obvious to one having ordinary skill in the art, at the time the invention was made to incorporate a suitable range of saturation induction, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller, 105 USPQ 233.*

Regarding claim 3, Otte, et al, further discloses that the amorphous ferromagnetic strips are coiled in order to form the magnetic cores.

Regarding claims 5, 8, and 9, Otte, et al, further discloses the utilization of copper windings about the core is known in the art. Copper material would be used for the purposes of good conductivity of electrical current (background of the disclosure). Furthermore, it would involve only routine skill in the art to incorporate an inductor as disclosed in to other devices.

Regarding claims 10 and 11, it has been held that a recitation with respect the manner in which a claimed apparatus us intended to be employed, in this case, "to be adapted for measurement by a voltmeter," does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham, 2 USPQ2d 1647 (1987).*

Regarding claims 11, Otte, et al, further discloses that it has been known in the art that transformers or other the like have an outputting voltage, which may be detected by energy meters for measurements (background of invention).

Allowable Subject Matter

5. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: no prior art or combination thereof teaches a magnetic core having a composition consisting of about 70-87 atom percent iron, which up to about 20 atom percent of iron may be replaced by cobalt and up to about 3 atom percent of iron may be replaced by Nickel, manganese, vanadium, titanium, or molybdenum, AND about 13-30 atom percent is selected from boron, silicon, carbon.

Response to Arguments

7. Applicant's arguments with respect to claims 1-3, 5, and 8-12, have been considered but are moot in view of the new ground(s) of rejection.

Further arguments are listed below:

(a) Objections to the drawings are withdrawn;

(b) Claim objections are withdrawn;

(c) Claim rejections under 35 USC § 112 are withdrawn.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Poker whose telephone number is 571-272-1997. The examiner can normally be reached on 5:30-4:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin G. Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jap
February 6, 2004